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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,705	02/28/2002	Kinneret Savitzky	2786-0207P	8557

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EXAMINER	
KAUFMAN, CLAIRE M	

ART UNIT	PAPER NUMBER
1646	

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/084,705	SAVITZKY ET AL.	
	Examiner	Art Unit	
	Claire M Kaufman	1646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-30* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

1-8. Claims 1, 2, 5, 9-11, drawn to nucleic acid, vector and host cell which is *isolated*, classified in class 536, subclass 23.5.

9-17. Claims 3-4, 12 and 13, drawn to polypeptide and pharmaceutical compositing comprising the polypeptide, classified in class 530, subclass 350.

18-26. Claim 6, 7, 14, and 27-30 drawn to an antibody which binds only a splice variant (claims 3-4) and not a TNFR, a pharmaceutical composition thereof, and method of detecting the variant, classified in class 530, subclass 387.9.

27-35. Claim 6, 8, 14, and 27-30, drawn to an antibody which binds only TNFR and not a splice variant sequence of claims 3-4, and a pharmaceutical composition thereof, and method of detecting the variant classified in class 530, subclass 388.22.

36-44. Claims 11-15, drawn to host cell which is not isolated and/or used or usable for gene therapy and a pharmaceutical composition comprising an expression vector or a nucleic acid, classified in class 514, subclass 44.

45-53. Claims 16-21, drawn to method of hybridization, classified in class 435, subclass 6.

54-62. Claims 22-24, drawn to method of identifying compounds which bind TNFR variant, classified in class 435, subclass 7.1.

63-71. Claim 25, drawn to TNFR variant agonist, classification dependent on agonist structure.

72-80. Claim 26, drawn to TNFR variant antagonist, classification dependent on antagonist structure.

The inventions are distinct, each from the other because of the following reasons:

Each Invention within each of groups of 1-8, 9-17, 18-26, 27-35, 36-44, 45-53, 54-62, 63-71 and 72-80 are distinct because each nucleic acid, for example, has a

different structure and requires a different individual search. That is, each Invention represents one of the eight different variants or the invention related to one of the eight particular variants. The different search is also required, for example, for each variant polypeptide or antibody binding a particular variant or method using a particular variant. Additionally, the burden of search for the Office has increased with multiple sequences because of the rapid introduction of new sequences to public sequence databases.

The nucleic acids of Inventions 1-8 are related to the polypeptides of Inventions 9-17 by virtue of encoding the same. Although the nucleic acid and polypeptide are related since the nucleic acid encodes the specifically claimed polypeptide, they are distinct inventions because the polypeptide product can be made by another and materially different process, such as by synthesis or purification from the natural source. Further, the nucleic acid may be used for processes other than the production of the polypeptide, such as nucleic acid hybridization assay.

The nucleic acids of Inventions 1-8 is related to the antibodies of Inventions 18-35 in that each nucleic acid encodes a protein to which the antibodies can bind. However, the nucleic acid is structurally different than the antibody, and can be used in materially different processes such as in the production of the encoded protein or in hybridization screening to identify related nucleic acids. The nucleic acids are not used in the methods of Inventions 18-35, which require protein and antibody.

Inventions 1-8 are related to Inventions 36-44 because the classification and search of the products is dependent on their method of use, which necessarily confers structural and functional requirements to each group of products. Further, the Inventions have different functions and modes of operation than those of the products of Inventions 1-8, which can be used for general *in vitro* amplification and isolation of the nucleic acid, while the products of Inventions 36-44 can be used for *in vivo* gene therapy.

Inventions 1-8 and 45-53 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different

process of using that product (MPEP § 806.05(h)). In the instant case the nucleic acids can be used for a different method such as production of the encoded proteins.

Inventions 1-8 and 54-80 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not structurally related for the products of Inventions 1-8 and Inventions 63-80, and the methods of Inventions 54-62 cannot use the nucleic acid of Inventions 1-8. Inventions 1-8 have a different function and effect than Inventions 54-80.

The polypeptides of Inventions 9-17 are related to the antibodies of Inventions 18-35 by virtue of being the cognate antigens, necessary for the production of the antibodies. Although the polypeptides and antibodies are related due to the necessary stearic complementarity, they are distinct inventions because each polypeptide can be used for another and materially different process other than for production of the antibodies, such as to assay or purify the natural ligand of the polypeptide (as the polypeptide is itself a receptor), or in assays for the identification of agonists or antagonists of the receptor polypeptide. Also, the methods of Inventions 18-35 do not require the polypeptide, but are a means of detecting it if present.

Inventions 9-17 and 36-44 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case each polypeptide is structurally and functionally distinct from each host cell, though it may be produced by the host cell. The polypeptide may be produced by another materially different means such as by isolation from a natural source. The polypeptide has a different mode of operation than the other inventions.

The proteins of Inventions 9-17 are related to the compounds of Inventions 63-80 by virtue of being bound by the compounds. Although the protein and compound are related as binding each other, they are distinct inventions because the proteins can be used for another and materially different process other than for binding the compounds,

such as to produce an antibodies or to affect the function of a cell. Further, the proteins are structurally distinct from the compounds.

Inventions 9-17 and 45-53 are unrelated. The polypeptide is not used in the method of hybridization and has a different function.

Inventions 9-17 and 54-62 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the polypeptide can be used in a materially different process such as in the production of an antibody.

Inventions 18-26 and 27-35 are related in that they are both antibodies, however they are distinct because the functional portion (variable domains) of the antibodies which are essential to each antibody's particular function are necessarily different since each must bind a different antigen or epitope. Distinct structures as well as distinct binding properties require different searches.

Inventions 18-35 are unrelated to Inventions 36-44 and 63-80. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, or they have different functions, or they have different effects. (MPEP § 806.04, MPEP § 808.01). In the instant case the host cells and vector compositions of Inventions 45-62 and agonists and antagonists of Inventions 63-80 are not used with the antibodies and have different structures and functions than the antibodies of Inventions 18-35.

Inventions 18-35 are unrelated to Inventions 45-62. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, or they have different functions, or they have different effects. (MPEP § 806.04, MPEP § 808.01). In the instant case the methods of Inventions 45-62 do not require the antibodies of Inventions 27-44, and the antibodies can have a different function for use in a different process such as immunohistochemical localization of the protein within a cell.

Inventions 36-44 and Inventions 63-80 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the host cell and vector composition have different modes of operation and are not used with the agonists and antagonists of Inventions 63-80.

Inventions 36-44 and Inventions 45-62 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the methods of hybridization and identification do not use the host cell or vector composition and have different effects than the products.

Inventions 45-53 and 54-62 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different method steps and different effects: detecting the polypeptide by binding and detecting a nucleic acid by hybridization, and are not used together.

Inventions 45-62 are unrelated to Inventions 63-80. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the methods of Inventions 45-62 do not use the agonists or antagonist of Inventions 63-80 and have different modes of operation.

Inventions 63-71 and Inventions 72-80 are related in that they bind the same proteins. However they are distinct because they have necessarily different structures and effects.

Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, have recognized divergent subject matter, and because each invention requires a separate non-coextensive search, restriction for examination purposes as indicated is proper.

Applicants are advised that claims 12-15 are improper Markush claims because the multiple elements recited therein are polypeptides antibodies and nucleic aids, which do not share a common utility and structure.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Rejoinder under Ochiai

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the

process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Claire M. Kaufman, whose telephone number is (571) 272-0873. Dr. Kaufman can generally be reached Monday, Tuesday and Thursday from 8:30AM to 2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback, can be reached at (571) 272-0961.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1600.

Official papers filed by fax should be directed to (703) 872-9306. NOTE: If applicant *does* submit a paper by fax, the original signed copy should be retained by the applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED so as to avoid the processing of duplicate papers in the Office. **Please** advise the examiner at the telephone number above before facsimile transmission.

Claire M. Kaufman, Ph.D.

Patent Examiner, Art Unit 1646

August 30, 2004